REMARKS

In the Office Action mailed June 13, 2006 from the United States Patent and Trademark Office, the Examiner required affirmation of the provisional election without traverse to prosecute the invention of group I, claims 1-3, based on the requirement of restriction of the claims to one invention under 35 U.S.C. § 121. The Examiner also rejected claim 1 under 35 U.S.C. § 112, first and second paragraphs, as failing to comply with the enablement requirement and as being indefinite for including the phrase "other material." Finally, the Examiner rejected claims 1-3 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,290,152 to Zickell (hereinafter "Zickell") or, in the alternative, under 35 U.S.C. § 103(a) as being obvious over Zickell in view of U.S. Patent No. 5,624,077 to Branscome (hereinafter "Branscome"). Applicants hereby amend the claims, submit new claims 7-17, and provide the following remarks:

Restriction Requirement:

Applicants hereby affirm the provisional election drawn to the method invention contained in claims 1-3 as filed, and have withdrawn claims 4-6 from consideration.

Rejections under 35 U.S.C. § 112, First and Second Paragraph:

Applicants have amended claim 1 to remove the reference to "other material," and respectfully submit that the rejections have been overcome.

Rejections under 35 U.S.C. § 102(b):

In the Office Action, the Examiner rejected claims 1-3 under 35 U.S.C. § 102(b) as being anticipated by Zickell. M.P.E.P. 2131 sets forth the standard for a rejection of a claim as anticipated under 35 U.S.C. § 102. "To anticipate a claim, the reference must teach every element of the claim." M.P.E.P. 2131 states further,

> "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). . . . "The identical invention must be shown in as complete detail as is contained in the . . . claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Applicants respectfully submit that the reference cited by the Examiner fails to teach every element of the claim set as provided herein for the following reasons.

Independent claim 1 requires the steps of "receiving asphalt material through a load hopper," "directing said asphalt material into a rotating drum via a chute," and "tumbling said asphalt material using a material classifier ring until said asphalt material is generally granularized." Claim 3 further requires "wherein the direction of said tumbling is reversed to further facilitate granularization." None of these limitations is taught by Zickell. Zickell specifically and repeatedly teaches a large, open-mouthed rotating drum, to which the asphalt shingling materials are directly added. (Fig 3 element 30, Col 7 lines 4-8, Col 8 lines 35-47) Therefore, Zickell fails to teach or suggest the elements of receiving the asphalt material through a load hopper and directing the asphalt material into a rotating drum through a chute. As disclosed by Applicants, these features provide benefits to the method as the exhaust from the heating of the rotating drum may be directed into the chute, conveyor belt, and load hopper (see heat flow diagram of Figure 2 and discussion on page 3 lines 15-19) to pre-heat the entering

asphalt material and accelerate the recycling process. The drum system disclosed by Zickell simply wastes any excess heat without capturing it for pre-heating purposes.

In the Office Action, the Examiner indicated that Zickell discloses a back plate 81 with lifters 80 and indicated that it was the Examiner's position that the back plate and lifters correspond to the claimed material classifier ring. Applicants respectfully disagree. Applicants' specification discloses that the claimed material classifier ring stops large chunks of asphalt material from going all the way through the recycling device/process until they have reached a predetermined smaller size. (See page 10 lines 5-9.) In contrast, Zickell discloses that the back plate 81 and lifters 80 actually advance debris such as nails and other material in the process where it may later be filtered out. Specifically, Zickell teaches that "[as] the back plate 81 rotates through the liquid slurry 44, the lifters 80 pick up asphalt, nails, rocks and other debirs that would otherwise stay in the milling elements . . . carries the liquid slurry 44 and debris out . . . allow it to constantly flow . . . down and through the grate 78." (Col 11 lines 48-56, emphasis added) Thus the cited elements of Zickell actually advance larger debris materials out of the rotating drum rather than retaining them until the asphalt material is generally granularized, as is required by the claim. For reference, Zickell discloses that the desired asphalt material should be retained in the recycling apparatus until the particle size is able to pass through approximately 200 mesh (i.e. the particle size is smaller than three hundredths of an inch, while nails can be several inches in length). (Col 5 lines 62-66)

Finally, Applicants submit that nothing in Zickell teaches reversing the direction of tumbling to further facilitate granularization. In fact, with the open-mouthed structure of Zickell, the disclosed mixing members arranged in a pattern and which "serve to pull the asphalt based material 12 away from the opening 30" would serve the reverse function to push the asphalt out

the open mouth 30. (Col 7 line 65-Col 8 line 2) This action is similar to that used by a cement mixing truck, where one direction of drum rotation mixes and retains the cement, while the other direction serves to push the cement up and out the drum opening for dispensing. (See Col 8 line 16).

Therefore, for at least the above-discussed reasons, Applicants respectfully submit that Zickell fails to teach all the claim elements of independent claim 1 and all dependent claims. Applicants therefore respectfully submit that the claims are not anticipated by Zickell under 35 U.S.C. § 102(b) and respectfully request removal of the rejections.

Rejections under 35 U.S.C. § 103(a):

In the Office Action, the Examiner alternatively rejected claims 1-3 under 35 U.S.C. § 103(a) as being obvious over Zickell in view of Branscome. The standard for a Section 103 rejection is set forth in M.P.E.P 706.02(j), which provides:

> To establish a *prima facie* case of obviousness, three basic criteria must be met. First there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, **the prior art reference (or references when combined) must teach or suggest all the claim limitations.** The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

(Emphasis added). Applicants respectfully submit that the references cited by the Examiner do not teach or suggest all the limitations claimed in the claim set provided herein. Applicants also respectfully submit that there is no suggestion or motivation to combine the references in the manner suggested by the Examiner, and that one of skill in the art would not reasonably expect success in combining the references in the manner provided.

As discussed above, Zickell fails to teach or suggest all the claim limitations required for independent claim 1. Furthermore, Branscome fails to teach or suggest "receiving asphalt material through a load hopper," "directing said asphalt into a rotating drum via a chute," and "tumbling said asphalt using a material classifier ring until said asphalt material is generally granularized." Instead Branscome teaches a machine for use in separating out the constituent elements of unset liquid concrete (sand, gravel, and cement) so that it may be reused at a later point. Thus the machine of Branscome has nothing to do with recycling asphalt material and does not disclose the method steps claimed in claim 1. Branscome does not teach a load hopper nor a chute, and thus cannot disclose the method steps requiring the presence of these elements.

In the Office Action, the Examiner alternatively relied on Branscome as teaching a material classifier ring if Zickell should be deemed not to disclose a material classifier ring, relying on the "screen chamber 30." As discussed above, Applicants have clearly shown that Zickell does not disclose a material classifier ring. For similar reasons, Applicants respectfully submit that Branscome also does not teach or suggest a material classifier ring. Applicants' specification discloses that the claimed material classifier ring stops large chunks of asphalt material from going all the way through the recycling device/process until they have reached a predetermined smaller size. (See page 10 lines 5-9.) In contrast, Branscome's screen chamber serves a completely different purpose as it functions with the screen portions, element 25a, to selectively retain smaller particles and to progress larger and larger elements farther in the machine (i.e. sand moves farther along than cement slurry, gravel moves farther along even than sand). (Col 5 lines 17-27, Col 5 line 61-Col 6 line 5, Col 6 lines 17-26) Where Applicants' material classifier ring serves to only let smaller granules continue through the machine, the screen chamber of Branscome serves an opposite purpose and serves to selectively pass larger

elements (gravel) through. Therefore, Applicants respectfully submit that Branscome fails to teach the element upon which it has been relied as teaching.

For at least these reasons, Applicants respectfully submit that neither Zickell, nor Branscome, nor the combination of the two teaches all the limitations of claim 1. Applicants further submit that one of skill in the art would not be motivated to combine the references in the manner suggested by the Examiner and would not expect success in doing so to arrive at the claimed invention. Specifically, although Zickell's and Branscome's machines have some similarities, the two machines rely on very different processes which are inherently incompatible. The machine of Branscome is for use with unset liquid concrete, which contains a very high concentration of liquid water, and the machine further injects additional water at various stages of the process to facilitate separation of the sand and gravel from the cement and separation of the sand from the gravel. (Col 5 lines 6-10, Col 6 lines 13-17) The entire process is dependent on the cement from the concrete mixture not setting, which would turn the concrete into waste, and if set within the machine would render it useless. Concrete, of course, sets more quickly in the presence of high temperatures. In contrast, Zickell's machine for use in recycling asphalt shingles requires the addition of a great deal of heat to arrive at temperatures sufficient to melt the asphalt material into a slurry. Zickell specifically discloses temperature ranges of 200-450 degrees Fahrenheit, and further discloses that one purpose of this high temperature is to drive out any moisture. (Col 5 line 60-Col 6 line 4) Thus, one of skill in the art would view these two references as inherently incompatible.

In the Office Action, the Examiner indicated that one of skill in the art would be motivated to combine the cited references "in order to provide further separation of the asphalt from objects such as wood, stick, or nails." Applicants respectfully disagree. The screen

chamber of Branscome provides no separation of such refuse objects, as it is used with unused mixed concrete, which has no such junk objects. Adding a screen chamber of Branscome with its water washing functions to a high-temperature asphalt recycling machine of Zickell would only add severe disadvantages, and would provide no discernable advantage to the machine of Zickell.

For at least these reasons, Applicants therefore submit that one of skill in the art would not have been motivated to combine Zickell and Branscome in the cited manner at the time of Applicants' invention, and would not expect success in doing so. Therefore, because the cited references fail to teach all the claim elements of independent claim 1, because there is no motivation to combine the cited references, and because one of skill in the art would not expect success in doing so, Applicants respectfully submit that the claimed invention is not made obvious by the cited combination of references. Applicants therefore respectfully request removal of the rejections of claims 1-3 under 35 U.S.C. § 103(a).

CONCLUSION

Applicants submit that the amendments made herein do not add new matter and that the claims are now in condition for allowance. Accordingly, Applicants request favorable reconsideration. If the Examiner has any questions or concerns regarding this communication, the Examiner is invited to call the undersigned.

DATED this 13th day of September, 2006.

Respectfully submitted,

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